

**Family list**

**3** family member for:

**JP59190945**

Derived from 1 application.

**1 PRODUCTION OF TETRACARBOXYLIC ACID**

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**PRODUCTION OF TETRACARBOXYLIC ACID**

**Patent number:** JP59190945  
**Publication date:** 1984-10-29  
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**Applicant:** JAPAN SYNTHETIC RUBBER CO LTD  
**Classification:**  
- **International:** C07C51/275; C07C61/06; C07C51/16; C07C61/00;  
(IPC1-7): C07C51/275; C07C61/06  
- **European:**  
**Application number:** JP19830064585 19830414  
**Priority number(s):** JP19830064585 19830414

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**Abstract of JP59190945**

**PURPOSE:**To obtain the titled compound useful as a raw material of polyamide or polyimide and a hardener for epoxy resin, etc., suppressing the production of NO<sub>x</sub>, by oxidizing hydroxy-dicyclopentadiene with nitric acid while keeping the oxygen partial pressure in the reaction system within a specific range. **CONSTITUTION:**2,3,5-Tricarboxy-cyclopentylacetic acid is prepared by oxidizing hydroxy-dicyclopentadiene with nitric acid in the presence of a metallic salt catalyst such as ammonium metavanadate, sodium nitrite, etc., keeping the oxygen partial pressure in the reaction system to  $\geq 0.5 \text{ kg/cm}^2$  G (higher the better but preferably  $\leq 50 \text{ kg/cm}^2$  from the view point of safety). The reaction temperature is preferably 20-80 deg.C, especially 40-60 deg.C. By keeping the oxygen partial pressure within the above range, the generated NO is oxidized to nitric acid, the generation of NO<sub>x</sub> gas can be reduced remarkably, the concentration of nitric acid in the reaction liquid becomes high, and the yield of the objective compound by the crystallization and separation can be improved.

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